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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/768,509	01/30/2004	Mihal Lazaridis	555255012690	6885

33070 7590 03/06/2007
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EXAMINER

WOZNIAK, JAMES S

ART UNIT	PAPER NUMBER
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2626

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/768,509	Applicant(s) LAZARIDIS ET AL.	
	Examiner James S. Wozniak	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-13 and 37-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-13 and 37-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 1/30/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. In response to the office action from 9/21/2006, the applicant has submitted an amendment, filed 12/8/2006, canceling claims 14-23, 28-32, and 46-47, while arguing to traverse the art rejection based on the limitation regarding performing the steps of searching, analyzing, and displaying while receiving an abbreviated textual command (*Amendment, Page 6*). The applicant's arguments have been fully considered, but are not convincing for the below given reasons.

Response to Arguments

2. Applicant's arguments have been fully considered but they are not persuasive for the following reasons:

With respect to Claim 2, the applicant argues that Beauregard (*U.S. Patent: 5,974,413*) and Eide (*Valet: An Intelligent Unix Shell Interface, " 1995*) fail to teach that the steps of search, analysis, and display are performed while receiving an abbreviated textual command. The applicant further argues that the prior art instead teaches that these steps are only performed after the command is completely received (*Amendment, Page 6*). In response, the examiner points out that it is the combination of Beauregard and Eide that teaches the aforementioned claim limitation.

More specifically, Beauregard teaches the steps of processing an abbreviated text input, which correspond to those steps in the presently claimed invention (*see prior Office Action, Page 4*). Although Beauregard performs such steps after a command is entered, not during command entry, Eide recites that a command search and display process may be performed during the reception of a complete text command (*i.e., when a text command is partially received*) (*Pages 37-38*) for the benefit of reducing tedium and typing errors in command entry (*Pages 29 and 37*). That is, while a text command is being received, Eide discloses that a command completion facility may search for and display a potential intended command. Thus, since Eide teaches that this process is performed while a text command is being received and Beauregard recites the process of receiving and processing an abbreviated text command, Claim 2 remains rejected. In response to the applicants arguments directed towards the art rejection of Claim 37, see the above response to arguments regarding claim 2.

The dependent claims further limit the rejected independent claims, and thus, also remain rejected.

In light of the applicant arguments directed towards the lack of written description rejection (*Amendment, Page 6*), the examiner has withdrawn the previous 35 U.S.C. 112, first paragraph rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 2-5, 9-13, and 37-45** are rejected under 35 U.S.C. 103(a) as being unpatentable over Beauregard et al (*U.S. Patent: 5,974,413*) in view of Eide ("*Valet: An Intelligent Unix Shell Interface*," 1995).

With respect to **Claim 2**, Beauregard discloses:

Receiving an abbreviated textual command in a natural language search engine (*text input, Col. 7, Line 58- Col. 8, Line 49; command code words, Col. 15, Lines 18-58; and wordbase search, Col. 16, Line 65- Col. 17, Line 31*);

While receiving the abbreviated textual command performing the steps of:

Searching a natural language database that stores a data set of abbreviated textual commands and associated application commands (*searching a "wordbase" database containing command code words and associated service scripts, Col. 16, Line 65- Col. 17, Line 31*);

Displaying a list of probable complete commands matching the currently received portion of the abbreviated textual command (*displaying multiple commands in a window that may correspond to a entered command word, Col. 42, Lines 27-50*).

Although Beauregard teaches a means for presenting a list of probable commands to a user and further discloses recording command history information (*Col. 17, Lines 16-31*), Beauregard does not specifically suggest utilizing the history information in determining the one or more probable commands. Eide, however, recites a means for determining probable input commands that utilizes a command history (*user input history used in determining a text*

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command, Pages 28-31). Eide further teaches the ability to perform a command search process similar to that of the claimed invention while receiving a textual input command (*pages 37-38*).

Beauregard and Eide are analogous art because they are from a similar field of endeavor in text command systems. Thus, it would have been obvious to one of ordinary skill in the art, at the time of invention, to modify the teachings of Beauregard with the means for determining probable input commands during text command reception utilizing a command history as taught by Ramaswamy in order to reduce tedium and typing errors in command entry while increasing command match frequency (*Eide, Pages 29 and 37*).

With respect to **Claim 3**, Beauregard further discloses:

If a user selects a complete command from the list, then setting the complete command as the abbreviated textual command, and executing the associated application command (*selection of a displayed script command and script execution, Col. 43, Lines 1-13*).

With respect to **Claim 4**, Beauregard additionally recites:

If a user does not select a complete command from the list, then receiving an entire abbreviated textual command in the natural language search engine (*no match is found and a next action word is accepted, Col. 18, Lines 1-4*).

With respect to **Claim 5**, Eide further recites:

If the abbreviated textual command has an exact match in the data set, then setting the exact match as a user command (*Pages 37-38*);

If the abbreviated textual command does not have an exact match in the data set, then analyzing historical preferences to determine if the abbreviated textual command has a probable match in the data set (*misspelled command corrections, Pages 94-95*);

If the abbreviated textual command has a probable match in the data set, then setting the probable match as the user command (*Pages 94-95 and returning a single probable command*);

If the abbreviated textual command does not have a probable match in the data set then presenting a list of possible command, receiving a command choice and setting the command choice as the user command (suggest probable command, Pages 94-95); and

Executing the command (*Pages 37-38*).

With respect to **Claim 9**, Beauregard further discloses:

The abbreviated textual command has a first component and a second component, wherein the first component represents a desired application command, and the second component represents a desired application tag (text command and application identifying tag, Col. 11, Lines 18-26); and

The natural language database stores a data set of abbreviated textual commands and associated application commands and tags (*database storing command text and application tags, Col. 34, Lines 8-18*).

With respect to **Claim 10**, Beauregard further discloses:

The abbreviated textual command is entered into a graphical dialog box (*action box, Col. 27, Line 66- Col. 28, Line 9*).

With respect to **Claim 11**, Beauregard further discloses:

The natural language search engine can receive the abbreviated textual command while any of the software applications are executing (*Col. 10, Lines 3-8*).

With respect to **Claim 12**, Eide further discloses utilizing history data in misspelling correction (*Pages 94-95*).

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With respect to **Claim 13**, Eide further recites:

The list of possible commands includes a set of generic application commands (*Page 97*).

Claim 37 contains subject matter similar to Claim 2, and thus, is rejected for the same reasons.

With respect to **Claim 38**, Eide further recites:

Displaying the probable subset of the complete commands to the user (*Page 37*).

With respect to **Claim 39**, Eide additionally recites:

Receiving an indication of which of the displayed complete commands a user chooses and executing the chosen complete command (*Page 37*).

With respect to **Claim 40**, Eide further discloses:

Receiving a further portion of the abbreviated textual command and narrowing the probable subset based on the further portion received (*Page 37*).

With respect to **Claim 41**, Eide recites:

When the probable subset consists of only one complete command, executing that one complete command (*Page 37*).

With respect to **Claim 42**, Beauregard further discloses uses-defined textual commands (*Col. 9, Lines 19-22*).

With respect to **Claim 43**, Eide discloses the command history information as applied to Claim 2.

With respect to **Claims 44-45**, Eide recites past commands selected more than half of the time (*Pages 29-30; Pages 37-38; Pages 94-95*).

5. **Claims 6-8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Beauregard et al (*U.S. Patent: 5,974,413*) in view of Eide ("*Valet: An Intelligent Unix Shell Interface*," 1995), and further in view of Ramaswamy et al (*U.S. Patent: 6,622,119*).

With respect to **Claim 6**, Beauregard in view of Eide teaches the software application launching method utilizing history information, as applied to Claims 2 and 5. Beauregard in view of Eide does not specifically suggest probability factors associated with historical command preferences nor the determination of a probably command as having greater than a threshold probability value however, Ramaswamy further discloses:

The step of analyzing historical preferences is performed using a set of probability factors that are generated based on historical preferences, where the abbreviated textual command has a probable match in the data set when a probability factor associated with the probable match is greater than a predetermined value (*probabilities based on user history, Col. 5, Lines 19-45; Col. 6, Lines 11-28; and probability threshold, Col. 8, Lines 3-24*).

Beauregard, Eide, and Ramaswamy are analogous art because they are from a similar field of endeavor in language command systems. Thus, it would have been obvious to one of ordinary skill in the art, at the time of invention, to modify the teachings of Beauregard with the means for determining probable input commands utilizing a command history as taught by Ramaswamy in order to achieve improved natural language understanding accuracy through the use of user regularity scores (*Ramaswamy, Col. 1, Lines 23-33*).

With respect to **Claim 7**, Ramaswamy further discloses:

The predetermined value is defined by a user (*predetermined threshold that would inherently be set by some type of user, Col. 8, Lines 3-24*).

With respect to **Claim 8**, Ramaswamy additionally recites:

Adjusting the set of probability factors each time the abbreviated textual command is entered into the hand-held device (*using input commands to adapt command prediction for a particular user, Col. 3, Lines 14-26; Col. 9, Lines 9-31*).

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

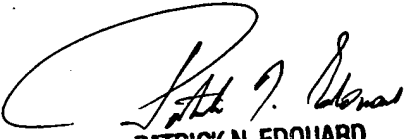
Miller et al (*U.S. Patent: 5,896,321*)- discloses a text completion system for partially entered text.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Wozniak whose telephone number is (571) 272-7632. The examiner can normally be reached on M-Th, 7:30-5:00, F, 7:30-4, Off Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached at (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James S. Wozniak
2/12/2007



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SUPERVISORY PATENT EXAMINER